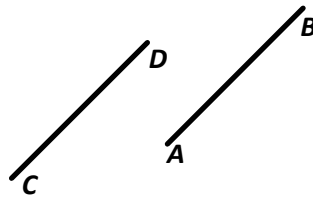


Proving Statements about Segments

1. For the following proof, name the property that justifies each statement.

Given: $\overline{AB} \cong \overline{CD}$

Prove: $\overline{CD} \cong \overline{AB}$



Statement

Reason

1. $\overline{AB} \cong \overline{CD}$

2. $AB = CD$

3. $CD = AB$

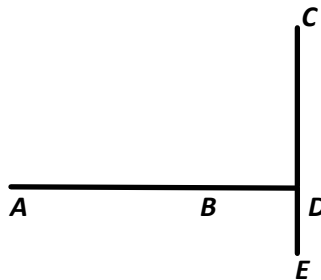
4. $\overline{CD} \cong \overline{AB}$

2. For the following proof, name the property that justifies each statement.

Given: $\overline{AB} \cong \overline{CD}$

$\overline{BD} \cong \overline{DE}$

Prove: $\overline{AD} \cong \overline{CE}$



Reason

Statement

1. $\overline{AB} \cong \overline{CD}$

$\overline{BD} \cong \overline{DE}$

2. $AB = CD$

$BD = DE$

3. $AD = AB + BD$

$CE = CD + DE$

4. $AB + BD = CD + DE$

5. $AD = CE$

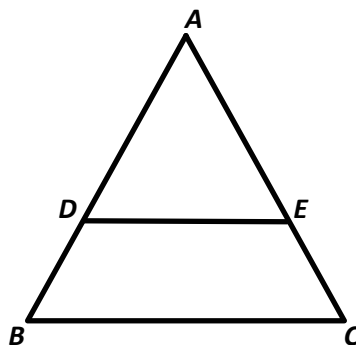
6. $\overline{AD} \cong \overline{CE}$

3. Write a two-column proof.

Given: $\overline{AB} \cong \overline{AC}$

$\overline{DB} \cong \overline{EC}$

Prove: $\overline{AD} \cong \overline{AE}$



4. Write a two-column proof.

Given: $\overline{AB} \cong \overline{CD}$

$\overline{EC} \cong \overline{EB}$

Prove: $\overline{AE} \cong \overline{DE}$

